

CLAIMS

1. A side airnet cushioning and restraint device for a vehicle configured to be inflated and deployed on a side of a vehicle between a front pillar and a rear pillar of said vehicle via an inflator during a side impact accident, a rollover accident, or a side
5 impact and a rollover accident, said side airnet comprising:

an inflatable net operatively connected to said inflator having

a top edge secured at a point above said vehicle's side windows and

between said front pillar and said rear pillar, and

a lower edge extending below said vehicle's side windows and between

10 said front pillar and said rear pillar;

a cable tensioner operatively connected to said inflater;

a retention cable anchored at said front pillar and said rear pillar and fed

through guides near said lower edge of said inflatable net and

operatively engaged by said cable tensioner.

15 2. The side airnet cushioning and restraint device of claim 1, where regions of said lower edge extend above said vehicle's side windows and regions of said lower edge extend below said vehicle's side windows.

20 3. The side airnet cushioning and restraint device of claim 1, where said retention cable tensioner incorporates a one-way clutch that maintains tension on said retention cable until positively released.

4. The side airnet cushioning and restraint device of claim 3, where said one-way clutch further comprises a mechanical release mechanism.

5. The side airnet cushioning and restraint device of claim 3, where said one-way clutch further comprises an electro-mechanical release mechanism.

6. The side airnet cushioning and restraint device of claim 3, where said one-way clutch further comprises a mechanical release mechanism and an electro-mechanical release mechanism.

7. The side airnet cushioning and restraint device of claim 1, where said one-way clutch further comprises a mechanical release mechanism.

8. The side airnet cushioning and restraint device of claim 1, where said retention cable is fabricated from braided poly(*p*-phenyleneterephtalamide).

9. The side airnet cushioning and restraint device of claim 1, where said inflatable net is reinforced with a supporting mesh.

10. The side airnet cushioning and restraint device of claim 1, where said inflatable net is reinforced with a supporting net.

11. The side airnet cushioning and restraint device of claim 1, where said inflatable net incorporates open cell foam padding.